

PLASTICS BREAKDOWN

WE USE TONS OF PLASTIC. IT'S IN **EVERYTHING** FROM PACKAGING TO TOYS, TO THE DASHBOARD IN YOUR CAR. MASSIVE AMOUNTS OF IT END UP IN THE OCEAN. IT CONTAINS TOXINS, AND ABSORBS MORE TOXINS. IT ENTANGLES AND KILLS SEA LIFE. IT CERTAINLY DOESN'T BIODEGRADE. BUT THERE ARE WAYS WE CAN HELP.

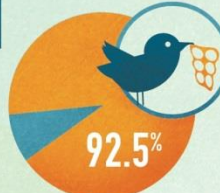


BAD FOR THE OCEAN. BAD FOR US



54%

OF THE 120 MARINE MAMMAL SPECIES ON THE THREATENED LIST HAVE BEEN OBSERVED **ENTANGLED** IN OR **INGESTING** PLASTIC.



92.5% OF DEAD SEABIRDS (NORTHERN FULMARS) IN A STUDY HAD INGESTED PLASTIC IN AMOUNTS EQUAL TO **5%** OF THEIR BODY WEIGHT.

AMERICANS USE ROUGHLY **100 BILLION** PLASTIC BAGS PER YEAR. **PLASTIC BAGS CAN TAKE 400 TO 1,000 YEARS TO DECOMPOSE**, BUT THEIR

CHEMICAL RESIDUES REMAIN FOR YEARS AFTER.

IT'S EXPENSIVE TOO...

AS OF 2009, SOUTHERN CALIFORNIA CITIES HAD SPENT OVER **\$1.7 BILLION** TO KEEP WATERWAYS FROM BEING OVER LEGAL TRASH LIMITS.

HOW BIG IS THE PROBLEM?

73.9
MILLION POUNDS

OF PLASTIC ARE SPREAD THROUGHOUT THE WORLD'S GYRES.

HOW MUCH PLASTIC ENDS UP IN THE OCEAN?



CIRCULAR CURRENTS (**GYRES**) THOUSANDS OF MILES ACROSS COLLECT IMMENSE AMOUNTS OF PLASTIC IN ALL OF THE WORLD'S OCEANS.

MICROPLASTIC CONCENTRATIONS IN THE NORTH PACIFIC GYRE **INCREASED 100X IN THE PAST 40 YEARS.**

CURRENTS CARRY THE PLASTIC EVERYWHERE.

RUBBER DUCKS LOST FROM A SHIPPING CONTAINER IN THE **NORTH PACIFIC** WERE FOUND NEAR **SCOTLAND**, IN THE NORTH ATLANTIC. TSUNAMI DEBRIS FROM JAPAN ARRIVED IN **NORTH AMERICA**, AFTER CROSSING THE LARGEST OCEAN ON EARTH **IN JUST 10 MONTHS.**



PLASTIC IS MADE OF TOXINS



MILLION BARRELS OF PETROLEUM & NATURAL GAS LIQUIDS

WERE USED TO MAKE U.S. PLASTIC PRODUCTS, EQUAL TO ABOUT **5%** OF THE NATIONAL PETROLEUM CONSUMPTION.

PLASTICS CONTAIN **TOXIC** CHEMICALS



PHthalates
FLAME RETARDANTS
BISPHENOL-A (BPA)

FACT:



MORE TOXINS ADHERE AS PLASTIC BREAKS DOWN

IN PLASTIC FROM **THE NORTH PACIFIC GYRE:**



40% CONTAINED PESTICIDES LIKE DDT. **50%** CONTAINED PCBs (**BANNED** BY U.S. CONGRESS IN 1979, FOR HAVING VARIOUS **NEUROTOXIC** EFFECTS). **80%** CONTAINED PAHs (MAY BE **HIGHLY CARCINOGENIC**).

FLOATING TOXIC MICROPLASTICS ARE OFTEN **INGESTED BY MARINE LIFE, WHICH IN TURN IS CONSUMED BY US.**

WHAT CAN WE DO TO HELP?

USE LESS PLASTIC

8 OF THE TOP 10 ITEMS FOUND ON BEACHES DURING LAST YEAR'S INTERNATIONAL COASTAL CLEAN-UP DAY WERE PLASTICS RELATED TO EATING & DRINKING.



PLASTIC BAGS > REUSABLE BAGS, NO BAG **STRAWS** > NO NEED **UTENSILS** > USE NON-PLASTIC



Excerpt from the Quarterly Foreign Direct Investment Questionnaire (U.S. Bureau of Economic Analysis)

Part I – Rules for Consolidating the U.S. Affiliate

6 Has the ownership structure of this U.S. affiliate changed since the previous quarter?

- ³⁰³ 1 ☐ Yes – Please provide a chart showing the new ownership structure if available.
2 ☐ No

7 Does this U.S. affiliate (as an individual entity) hold a MAJORITY voting interest (over 50 percent) in any U.S. business enterprises?

- ³⁰⁴ 1 ☐ Yes –
- **Consolidate** in this report ALL U.S. business enterprises proceeding down each ownership chain whose voting securities are more than 50 percent owned by the U.S. enterprise above (with the exception noted below). Hereinafter the U.S. business enterprises consolidated on this report are considered one U.S. affiliate.
 - **DO NOT consolidate** any U.S. business enterprises in which a direct ownership interest and an indirect ownership interest are held by DIFFERENT foreign entities. **Report** this U.S. affiliate's interest in such enterprises on an equity basis, even if it is more than 50 percent. These enterprises must file their own Form BE-605 unless they qualify for exemption.

2 ☐ No

8 Does this U.S. affiliate hold a voting interest from 10 to 50 percent in any U.S. business enterprises?

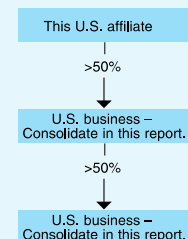
- ³⁰⁵ 1 ☐ Yes – **Do not consolidate** such enterprises in this report. **Report** this U.S. affiliate's interest in such enterprises on an equity basis, **OR** in accordance with FASB ASC 320 (formerly FAS 115) if owned less than 20 percent. These enterprises must file their own Form BE-605 unless they qualify for exemption.

2 ☐ No

9 Does this U.S. affiliate own, either directly or indirectly, any foreign business enterprises?

- ³⁰⁶ 1 ☐ Yes – **Do not consolidate** foreign business enterprises in this report. **Report** U.S. affiliate's interest in foreign operations on an equity basis, **OR** in accordance with FASB ASC 320 (formerly FAS 115) if owned less than 20 percent.

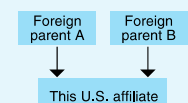
2 ☐ No



Part II – Identifying the Foreign Parent

10 Does more than one foreign parent have a direct investment voting interest in this U.S. affiliate?

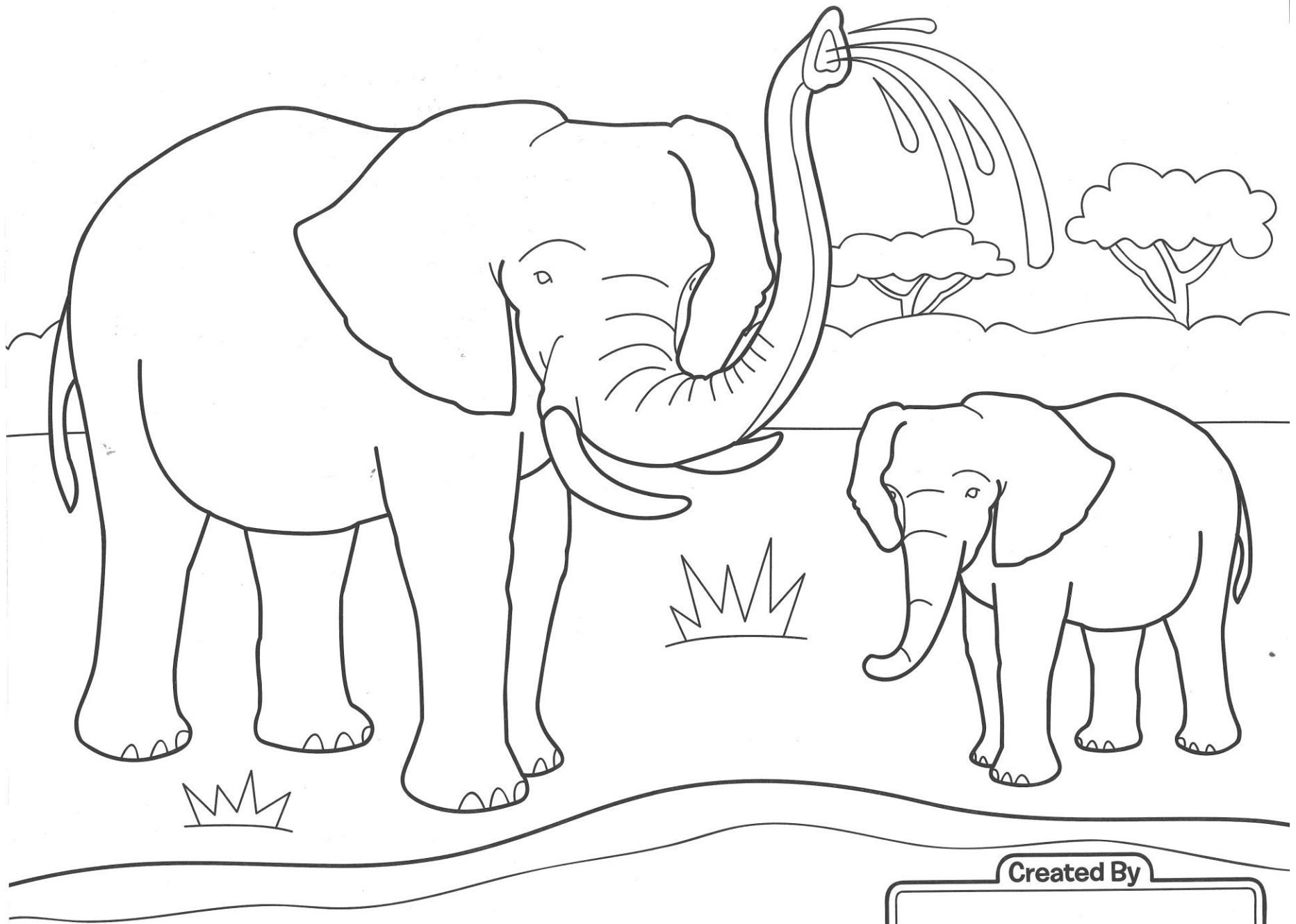
- ³⁰⁷ 1 ☐ Yes – **File** a separate BE-605 report for each foreign parent having a direct investment voting interest in this U.S. affiliate.
2 ☐ No



11 What is the name of the FIRST foreign parent in a chain of ownership extending outside the United States that holds either a direct or indirect voting interest in this U.S. affiliate?

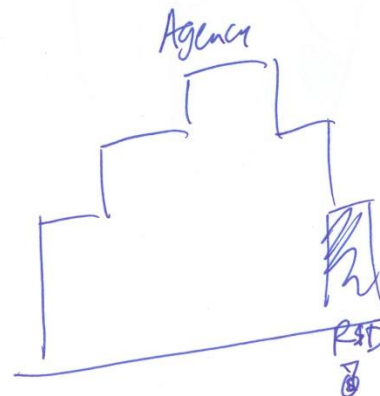
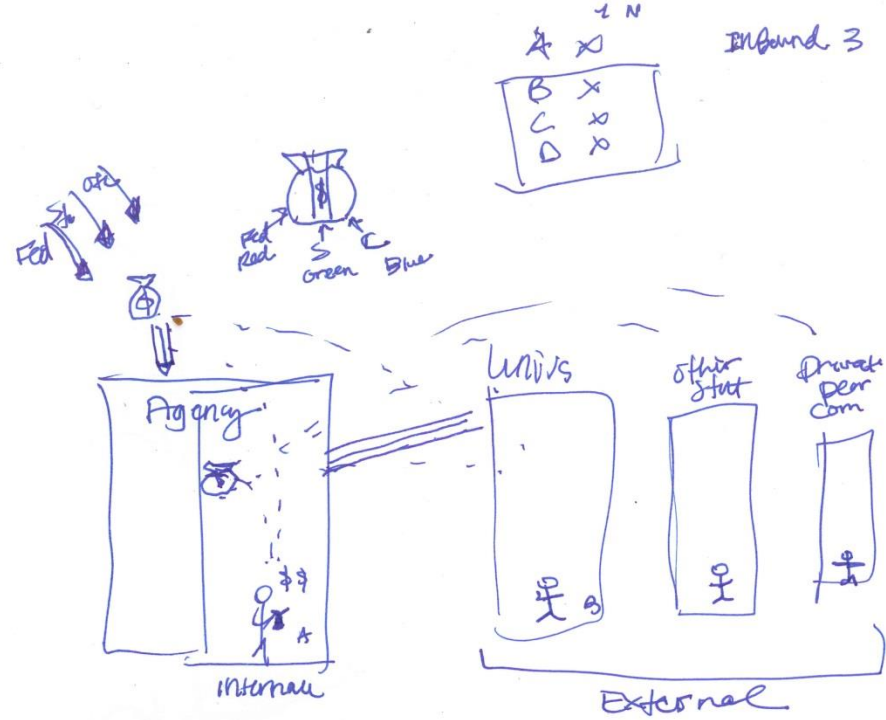
- The entity named below is hereinafter referred to as the foreign parent.
- **Report** transactions with the foreign parent in **Parts III, IV, V, and VI**.

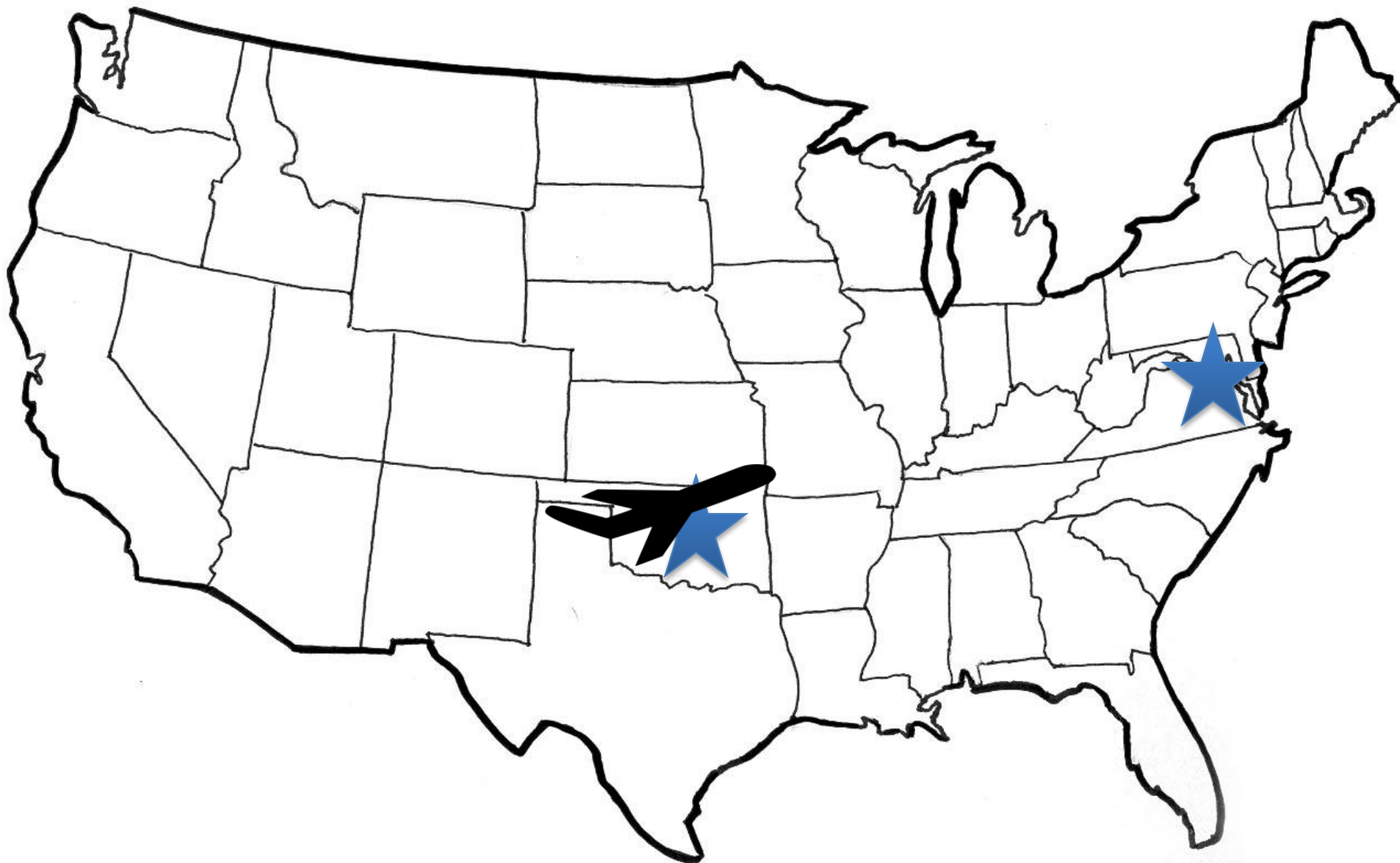
³⁰⁸
Name of the foreign parent
of this U.S. affiliate



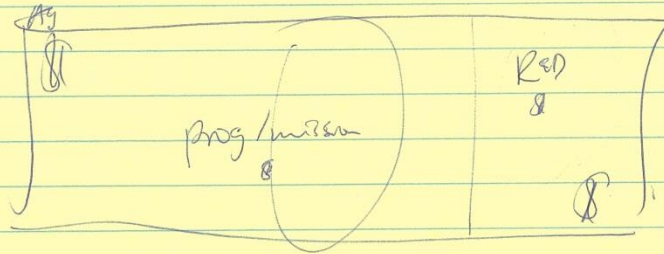
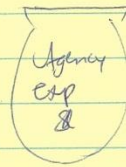
Created By

Early efforts
were...less than
ideal.

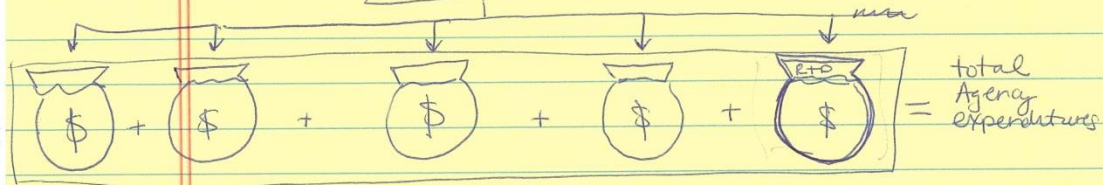




What was your total R&D exp.?

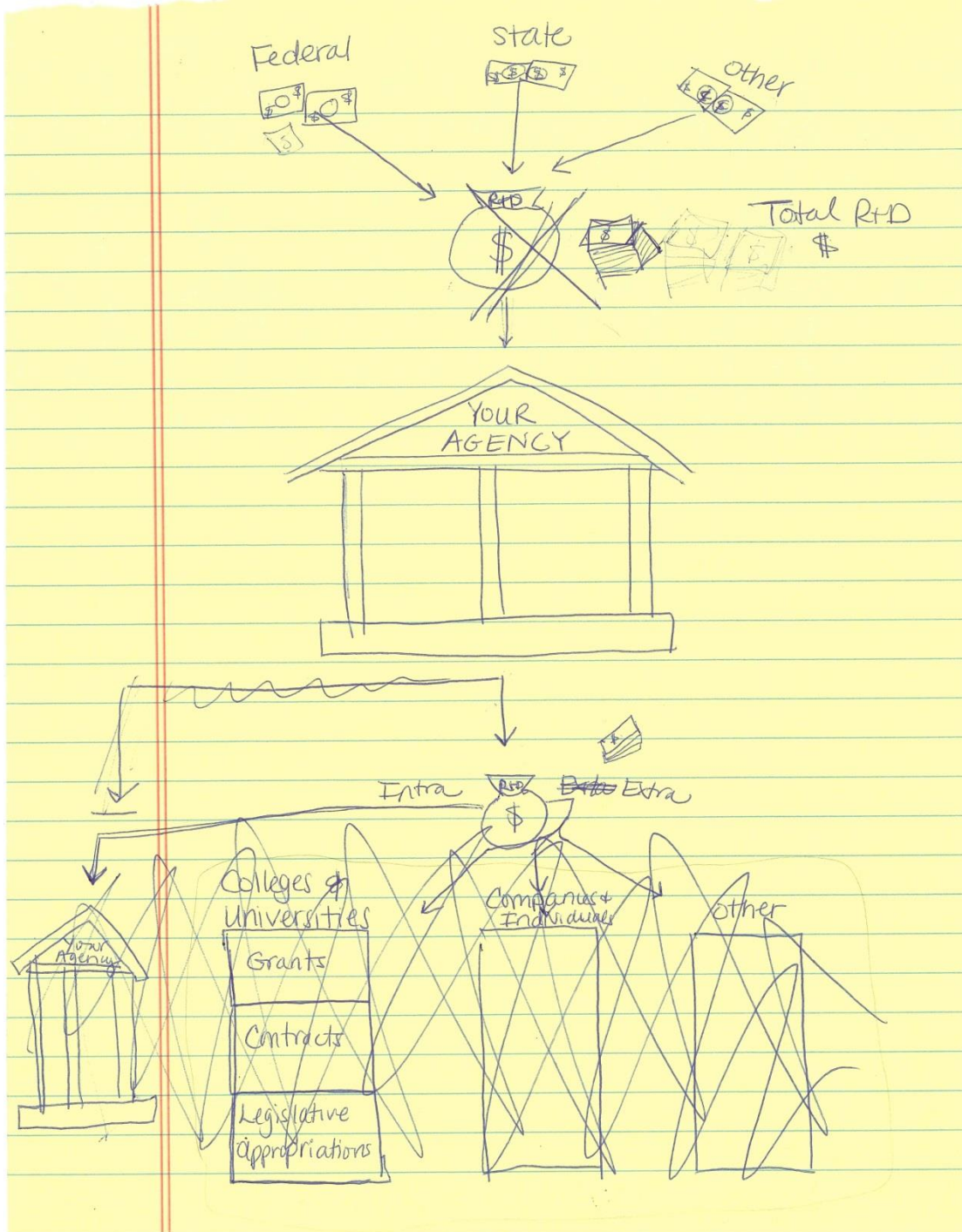


Question #3
What were ~~your~~ your
Total R&D
expenditures?



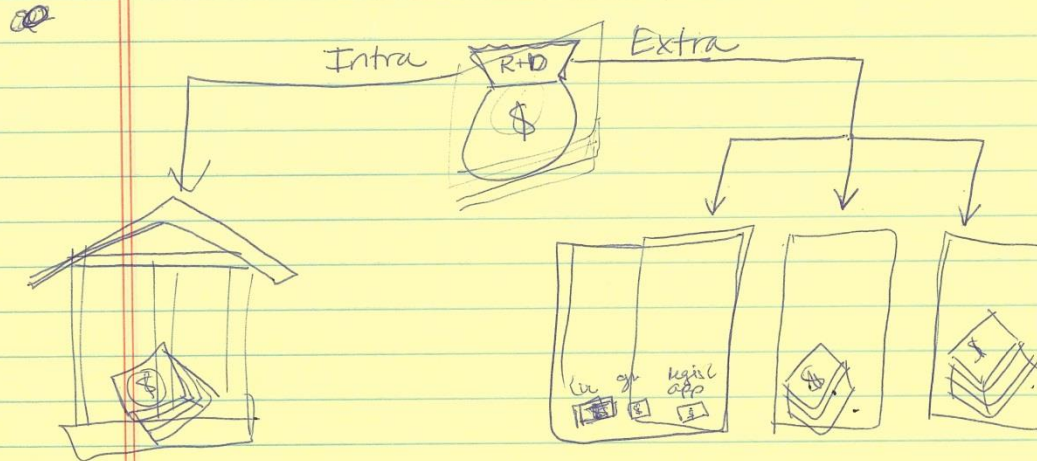
What were ~~the~~ the total R&D expend. for your
agency?



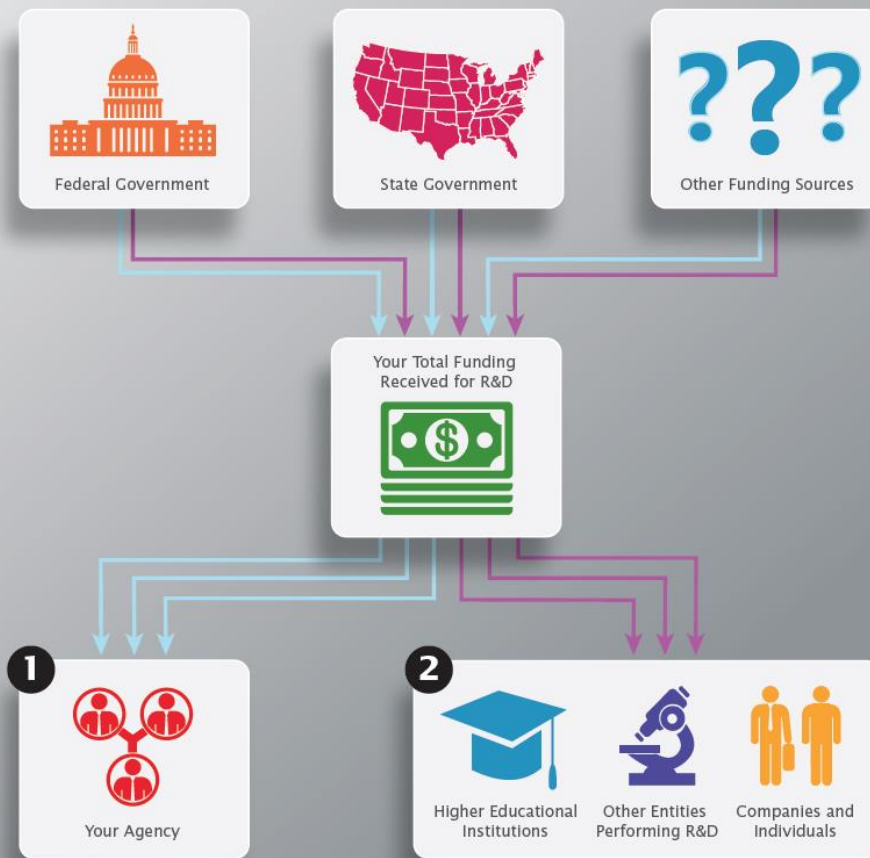


use graphic
New Q (Filter)
Q7, Q8, Q9

Q11, new pass-through filter
Detailed Extramural
+ Q15

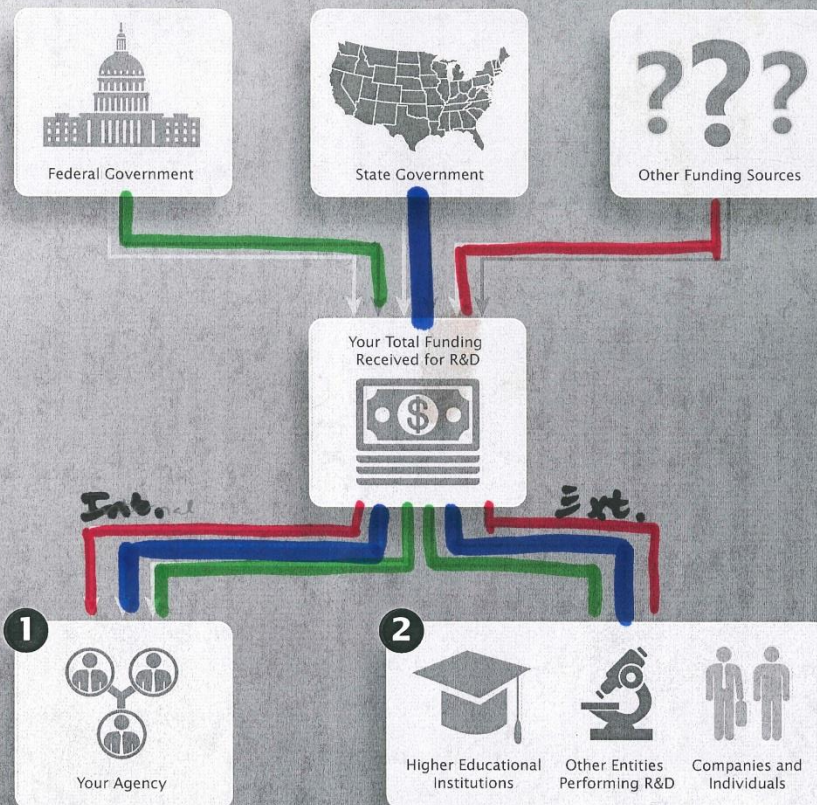


State R&D Graphic, Version 1



- 1** The money you spent on R&D - your total R&D expenditures - can come from a variety of sources: the federal government, your state's government, or a handful of other sources, like local governments or businesses.
- 2** Your R&D expenditures can be sent to a variety of entities where the R&D is performed. R&D can be performed by your own agency, or it can be performed by an outside entity like a higher educational institution, a company or an individual, or some other entity like a nonprofit or a local government.

State R&D Graphic, Version 1, markup

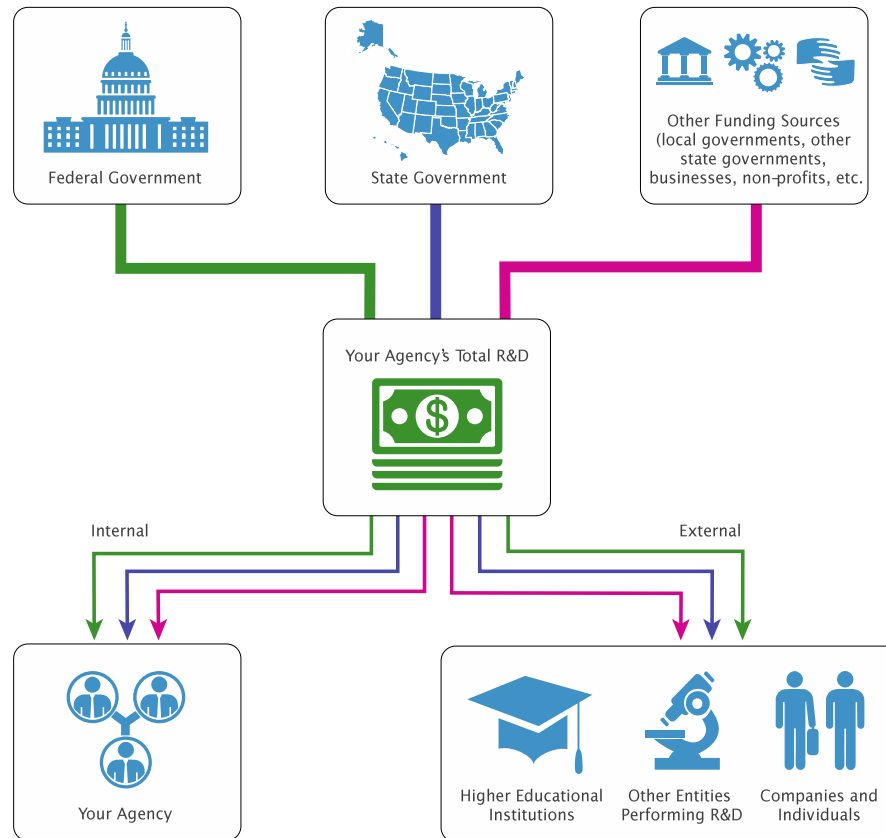


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State R&D Graphic, Version 3

(Tested with
respondents,
Spring 2015)

Framework for Monetary Flow for R&D

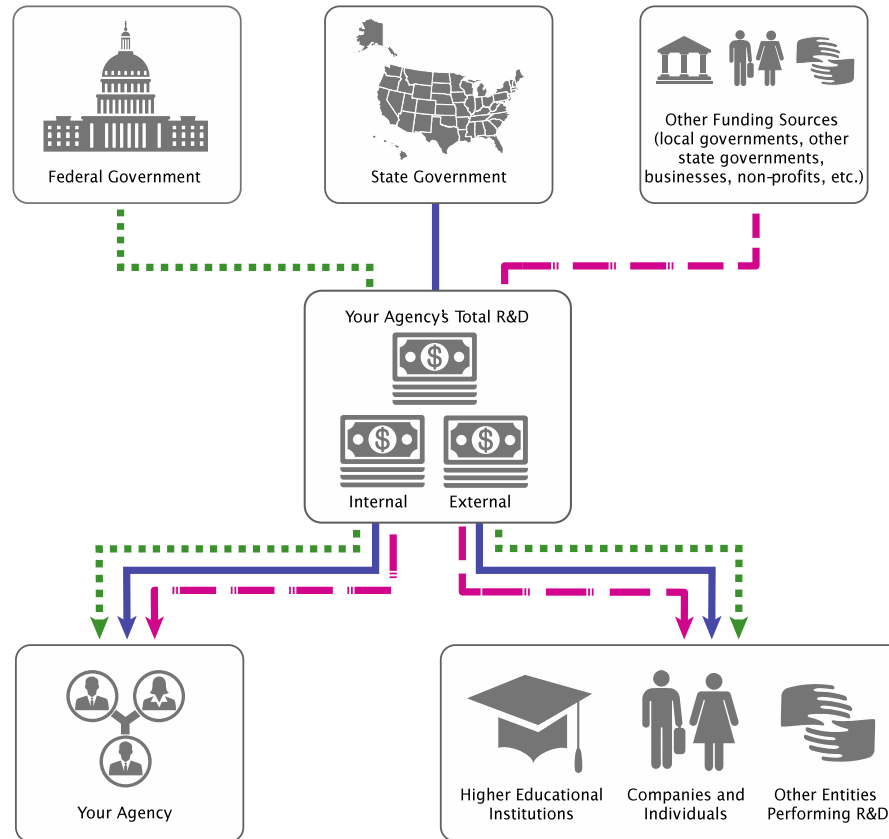


Respondent Reactions

- Comprehension good
- Some respondents attended to text more than icons
- Title sounded too academic
- All male figures, some females needed

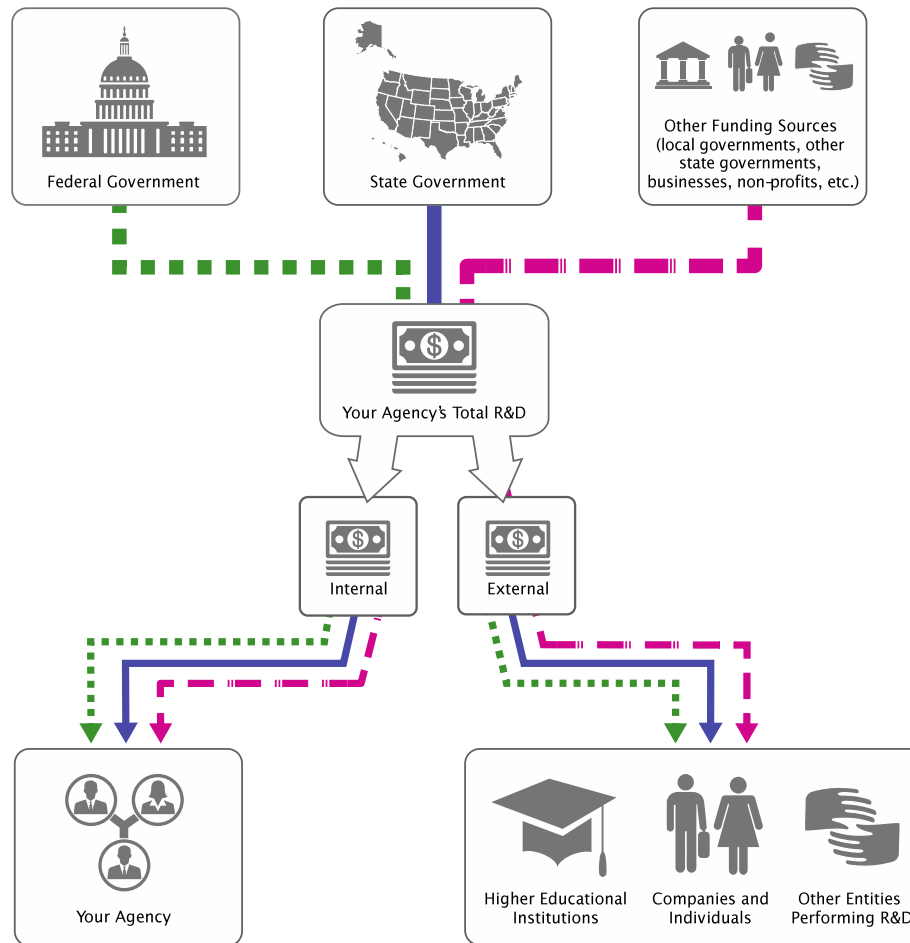
State R&D
Graphic,
Version 3c

R&D Funding Structures



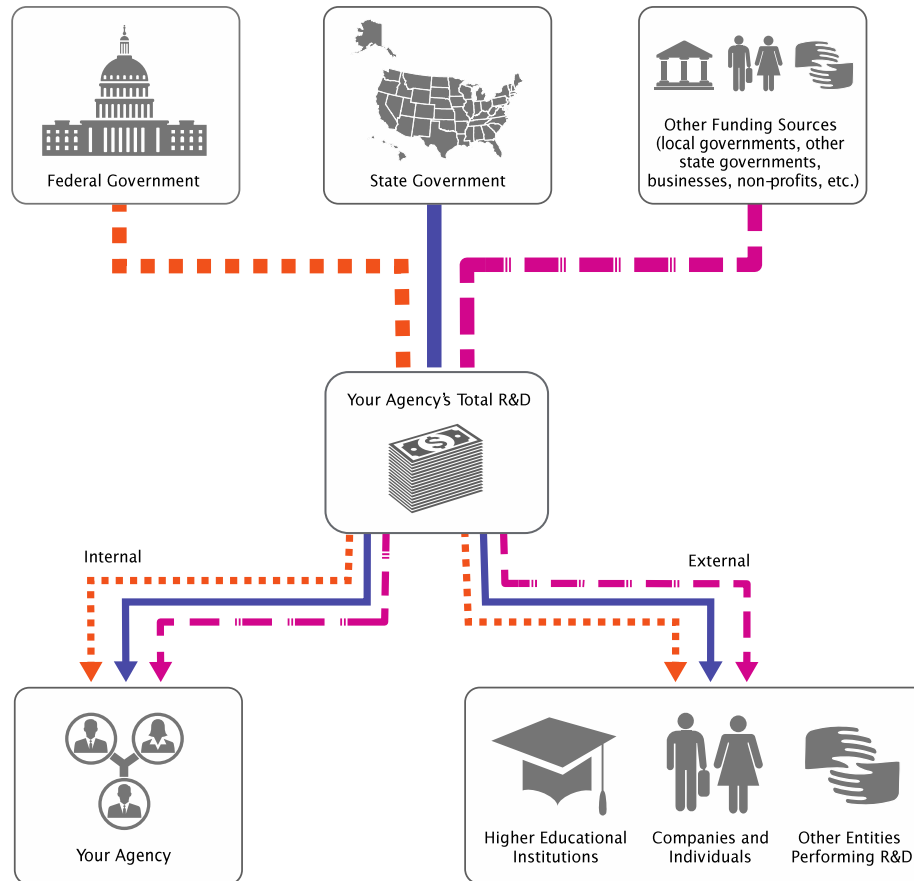
R&D Funding Structures

State R&D
Graphic,
Version 3d



R&D Funding Structures

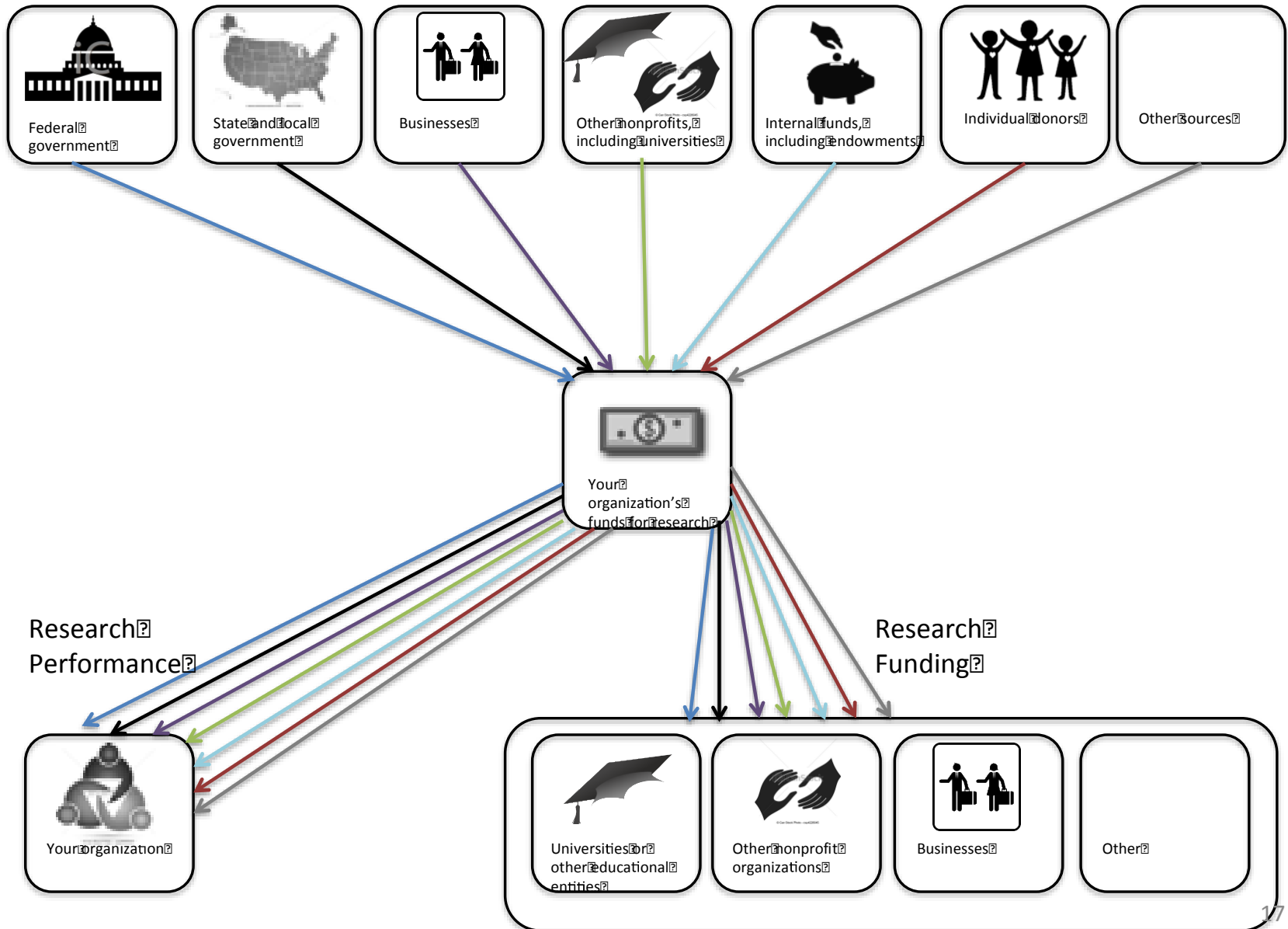
State R&D
Graphic,
Version 4



Challenges

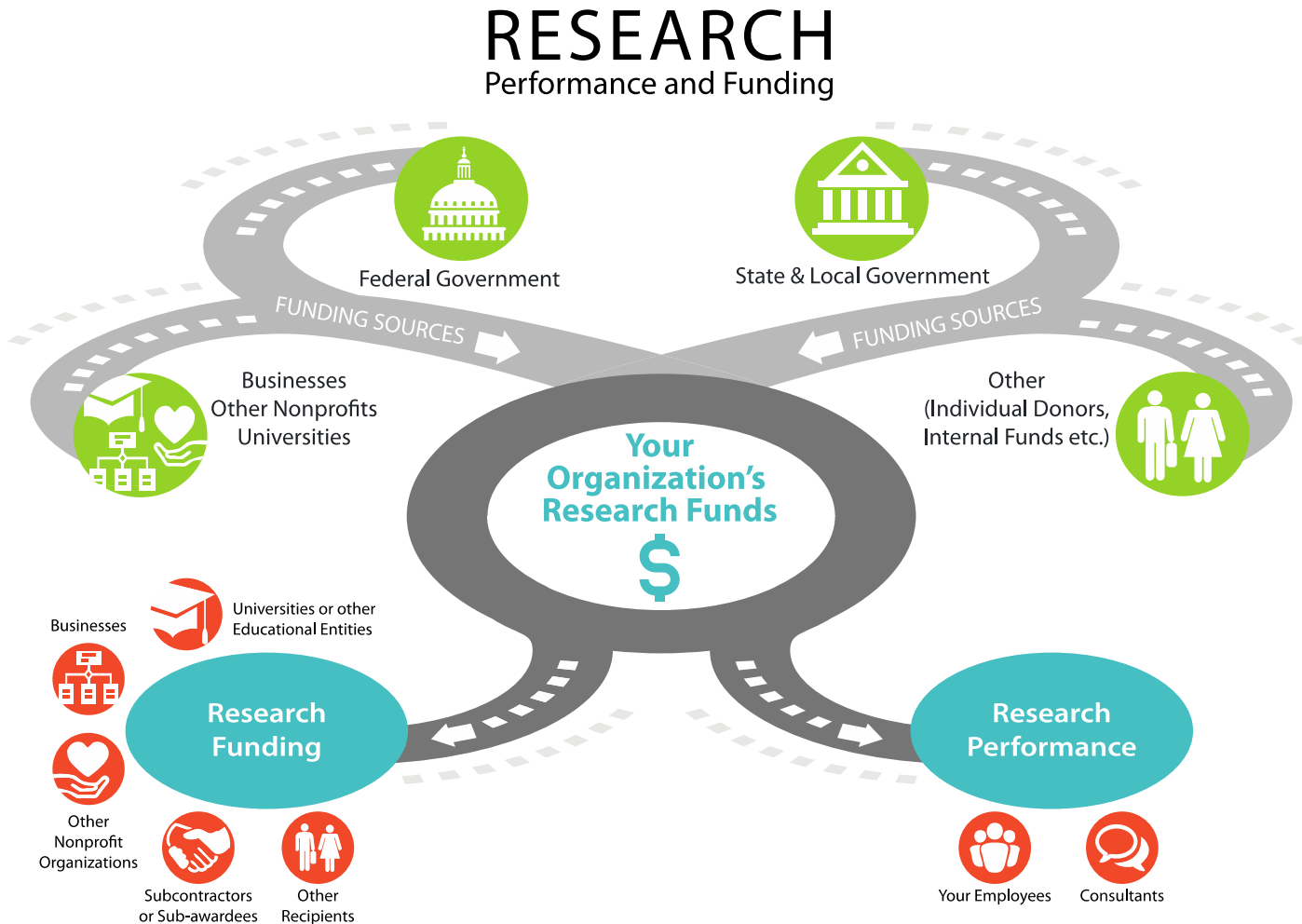
- Developing a graphic that balances utility for respondents, graphic designer expertise, and programming resources.
- Programming constraint: no custom programming at this time (result: no graphics with questions, but links are ok).
 - Where should the graphic be placed, if it can't be displayed in full with the question?
 - How do we encourage respondents to make extra clicks to see the graphic, when we know they are reluctant to do so?

Non-Profit R&D Graphic, Version 1



Non-Profit R&D Graphic

Tested with respondents (Summer 2015)



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